



# Construction Waste Management Sub Plan (CWMSP)

Kingscliff Public School Upgrade



SSD-8378620

JULY 2023

REV 34

## Document control

### Approval and authorisation

<b>Title</b>	Kingscliff Public School Upgrade: Waste Management Sub Plan
<b>Approved on behalf of Richard Crookes Constructions by</b>	Jason Cooke
<b>Signed</b>	
<b>Dated</b>	20.07.23
<b>Approved on behalf ENV Solutions by</b>	Ben Pieterse
<b>Signed</b>	
<b>Dated</b>	8/03/2022

### Document status

Revision	Date	Description	Approval
DRAFT	08/10/2021	Draft	Ben Pieterse
Rev 1	8/3/2022	Deliverable	Jenny Hellyer & B.P.
Rev 2	17/5/2022	Deliverable	Jenny Hellyer
Rev 3	8/10/2022	Review	Jason Cooke
Rev 4	19/07/23	General review	Jason Cooke

### Distribution of controlled copies

This WRMP as part of the CEMP is available to all personnel and sub-contractors via the Project document control management system. The document is uncontrolled when printed. One controlled hard copy of the WRMP as part of the CEMP and supporting documentation will be maintained by the Quality Manager at the Project office.

Copy number	Issued to	Version

## Contents

<b>Glossary/ Abbreviations</b> .....	<b>2</b>
<b>Condition B18 Compliance Table</b> .....	<b>3</b>
<b>1 Introduction</b> .....	<b>5</b>
1.1 Context .....	5
1.2 Background and project description .....	5
<b>2 Purpose and objectives</b> .....	<b>6</b>
2.1 Purpose .....	6
2.2 Objectives.....	6
<b>3 Environmental requirements</b> .....	<b>7</b>
3.1 Legislation, Guidelines and Standards.....	7
3.2 Guidelines and Standards.....	7
<b>4 Environmental aspects and impacts</b> .....	<b>2</b>
4.1 Construction waste streams and resource use.....	2
4.2 Impacts.....	2
4.3 Sources .....	3
4.3.1 Hazardous Materials.....	3
4.3.2 Acid Sulfate Soils .....	3
4.3.3 General Solid Waste (Putrescible).....	3
4.3.4 Construction and Demolition Waste.....	3
<b>5 Waste Management</b> .....	<b>4</b>
5.1 Waste management hierarchy .....	4
5.1.1 Reuse and recycling .....	4
5.1.2 Waste handling and storage.....	4
5.1.3 Treatment and Disposal.....	5
5.1.4 Disposal of Asbestos .....	6
5.2 Classification of waste streams.....	6
5.3 Waste exemption .....	7
5.4 Management of waste streams.....	8
5.5 Resource management and conservation.....	8
<b>6 Environmental mitigation and management measures</b> .....	<b>11</b>
<b>7 Compliance management</b> .....	<b>15</b>
7.1 Roles and responsibilities .....	15
7.2 Procurement of waste contractors.....	15
7.3 Training .....	15
7.4 Site waste control and management.....	15

7.5	Monitoring and inspection .....	16
7.6	Auditing .....	16
7.7	Reporting.....	16
7.8	Waste management register .....	16
	A waste management register (Appendix A) will be maintained and include the following information:.....	16
	• Type of waste and its classification (according to the POEO Act and Waste Classification Guidelines). .....	16
	• Quantities of waste, measured in tonnes.....	16
	• How and where the waste was reused, recycled, stockpiled or disposed of. ....	16
	• Date when the waste was reused, recycled, stockpiled or disposed of; and .....	16
	• Name and waste transport licence (if applicable) of the transporter used.....	16
<b>8</b>	<b>Review and improvement .....</b>	<b>17</b>
8.1	Continuous improvement .....	17
	<b>Appendix A: Waste Management Register.....</b>	<b>18</b>
	<b>Appendix B: Training Records.....</b>	<b>20</b>

## Glossary/ Abbreviations

Abbreviations	Expanded text
CEMP	Construction Environmental Management Plan
CWMSP	Construction Waste Management Sub-Plan
DP&E	NSW Department of Planning and Environment
DPI	NSW Department of Primary Industries
EIS	Ecological Impact Statement
ENM	Excavated Natural Material, as defined in <i>the excavated natural material exemption</i>
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPL	Environmental Protection Licence
EWMS	Environmental Work Method Statements
PESCP	Progressive Erosion and Sediment Control Plan
RAP	Reclaimed asphalt pavement

Abbreviations	Expanded text
Resource	Resource covers energy, fuel, oil, water and other materials used for construction of the project.
VENM	Virgin Excavated Natural Material
WARR Act	<i>Waste Avoidance and Resource Recovery Act 2001</i>
WRMP	Waste and Resource Management Sub-Plan
WRAPP	Waste Reduction and Purchasing Policy

## Condition B18 Compliance Table

Condition	Condition Requirements	Document reference
B18	The Construction Waste Management Sub-Plan (CWMSP) must address, but not be limited to, the procedures for the management of waste including the following:	
	the recording of quantities, classification (for materials to be removed) and validation (for materials to remain) of each type of waste generated during construction and proposed use.	3 - 7
	information regarding the recycling and disposal locations.	8 - 9
	confirmation of the contamination status of the development areas of the site based on the validation results.	2

Condition	Condition Requirements	Document reference
AN11	The Applicant must consult with SafeWork NSW concerning the handling of any asbestos waste that may be encountered during construction. The requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to Part 7' - Transportation and management of asbestos waste' must also be complied with.	

# 1 Introduction

## 1.1 Context

This Construction Waste Management Sub Plan (CWMSMP or Plan) forms part of the Construction Environmental Management Plan (CEMP) for the Kingscliff Public School (KPS) Upgrade (the Project).

## 1.2 Background and project description

The KPS Upgrade Project will include the demolition of existing buildings A, C, E and F and their ancillary structures. It will also include construction of the following:

Construction includes:

- New two (2) storey building (Building 1) comprising 12 x home bases with practical activity areas and withdrawal spaces, amenities, special programs unit and library;
- New two (2) storey building (Building 3) comprising 10 x home bases with practical activity areas and withdrawal spaces, storerooms and grounds attendant office and workshops.
- New two (2) storey building (Building 4) comprising 10 x home bases with practical activity areas and withdrawal spaces, amenities, and special programs unit;
- New COLA situated between the existing hall/canteen and new building 1;
- Construction of concrete walkways connecting all new buildings and existing structures;
- Construction of new basketball/playing court; and
- Minor landscaping works and tree removal

The Project site is located in the town of Kingscliff, in the Northern Rivers region of New South Wales (NSW), within the Tweed Shire Local Government Area (LGA).

The Environmental Impact Statement (EIS) prepared by SJB Planning on behalf of the NSW Department of Education (DoE) in support of State Significant Development (SSD) SSD-8378620, assessed the impacts of construction in terms of waste generation/management and resource use, within chapters 3.10 and 6.16.

The EIS identified the various waste streams that would be generated during the construction of the project, including demolition waste, construction waste and occupational waste. It also identified opportunities to avoid, reduce and recycle waste.

## **2 Purpose and objectives**

### **2.1 Purpose**

The purpose of the CWMS is to address satisfy conditions of the State Significant Development Approval (SSDA-8378620 dated 15 February 2022, condition B18) Where:

- B18. The Construction Waste Management Sub Plan (CWMS) must address, but not be limited to, the procedures for the management of waste including the following:
- a) The recording of quantities, classification (for materials to be removed) and validation (for materials to remain) of each type of waste generated during construction and proposed use (Section 5);
  - b) Information regarding the recycling and disposal locations (Section 5); and
  - c) Confirmation of contamination status of the development areas of the site based on the validation results.

### **2.2 Objectives**

In complying with condition B18 (SSDA-8378620 dated 15 February 2022), the objective of the CWMS is to ensure all waste management and resource recovery objectives, presented in the EIS and Waste Avoidance and Resource Recovery Act (2001), are identified and determined to allow the principal contractor to manage waste onsite compliantly and effectively.



## **3 Environmental requirements**

### **3.1 Legislation, Guidelines and Standards**

The main guidelines, specifications, and policy documents relevant to this plan include:

- Waste Avoidance and Resource Recovery Act 2001;
- Contaminated Land Management Act 1997;
- Environmentally Hazardous Chemicals Act 1985;
- Protection of the Environment Operations Act 1997;
- Protection of the Environment Operations (Waste) Regulation 2014;
- Tweed Shire Council Development Control Plan, Section A15 2008;
- NSW Environment Protection Authority Better Practice Guide for Waste Management and Recycling in Commercial and Industrial Facilities 2012; and
- Construction and Demolition Waste Guide – Recycling and Reuse Across the Supply Chain Department of Sustainability, Environment, Water population and Communities 2011.

### **3.2 Guidelines and Standards**

The main guidelines, specifications and policy documents relevant to this plan include:

- NSW EPA Waste Classification Guideline 2014;
- NSW EPA Asbestos and Waste Tyres Guidelines 2015;
- Waste Avoidance and Resource Recovery Strategy 2007;
- Resource Recovery Orders and Exemptions 2015;
- NSW EPA Standards for Managing Construction Waste in NSW 2019.

## 4 Environmental aspects and impacts

### 4.1 Construction waste streams and resource use

The following construction related waste streams have been identified:

- Contaminated soil, including potential Acid Sulfate Soil (PASS) and Acid Sulfate Soil (ASS) which is addressed in the Construction Soil and Water Management Sub Plan)
- Demolition waste from demolition of buildings including concrete, bricks, tiles, timber (untreated, treated), metals, plasterboard, carpets, electrical and plumbing fittings and furnishings.
- Hazardous waste (including asbestos) which is addressed in the Construction Hazardous Material Management Plan)
- Soil - Excavated Natural material (ENM)
- General Construction Waste: Concrete, Bricks, Tiles, Recovered aggregate, Co-Mingled waste, Soil – Excavated Natural Material (ENM), Metal Waste, Cardboard Waste.
- General waste from office and crib rooms: - Putrescibles, paper, cardboard, plastics, glass and printer cartridges.
- Waste from operation and maintenance of vehicles and machinery: - Adhesives, lubricants, waste fuels and oils, engine coolant, batteries, hoses and tyres.

The EIS also notes that the increase in pupil capacity at KPS following the upgrade will drastically increase operational waste such as Cardboard/paper recycling, co-mingling recycling, food organics recycling and general waste. This waste generated following the completion of the project will be the responsibility of Kingscliff Public School and will be contained within the Operational Waste Storage and Processing Plan (OWSP) required as part of SSDA-8378620 dated 15 February 2022, condition B25).

### 4.2 Impacts

The potential environmental impacts associated with waste generation and resource use during the demolition and construction phase of the Project include:

- Generation of excessive waste
- Land and water pollution as a result of inappropriate disposal of waste.
- Generation or spread of contaminated and or hazardous waste/soils, e.g. unexpected find of contaminated sediment, and materials/soils impacted by chemical leaks and spills.
- Avoidable use of resources.
- Consumption of non-renewable resources such as energy, diesel and other chemicals; and greenhouse gas emissions due to consumption of energy from non-renewable resources;
- Inadequate storage, handling, transportation and classification of waste, resulting in waste contamination, mixing of different waste classes, inappropriate transportation and disposal;
- Contamination of soil, surface water and/or groundwater could occur due to spills from inappropriate storage of waste material, improper bunding for liquid waste storages, in appropriate stockpiling etc;
- Dust impacts could result from the inappropriate soil storage management (both in trucks during transportation and at stockpile sites);

- Transport and disposal of liquid and solid wastes could lead to environmental pollution and potential indirect impacts on public health;
- Incorrect storage, handling and disposal of putrescible waste from work sites or site offices, this could lead to an increase in vermin and nuisance effects on surrounding properties; and
- Incorrect classification, handling and/or disposal of contaminated waste, including contaminated soil and asbestos containing materials, could lead to environmental pollution or increased public health risks.

The waste streams expected to be generated from the project are discussed in section 4.3 below.

## **4.3 Sources**

### **4.3.1 Hazardous Materials**

The Hazardous Material Survey prepared by Hazmat Services Pty Ltd dated March 2020, identified asbestos containing material (ACMs), Lead and Synthetic Mineral Fibres (SMF) on site.

Further to this, potential historic use of hazardous materials during the time of construction of the Kingscliff Public School and associated structures (including buildings, classrooms and timber structures), has meant hazardous materials in addition to asbestos such as lead based paints and polychlorinated Biphenyls (PCB's) may be present.

### **4.3.2 Acid Sulfate Soils**

For the purposes of this plan, if acid sulfate soils are encountered all disposal is to be undertaken in accordance with the Acid Sulfate Soils Management Plan located within the Detailed Site Investigation for Contamination Far North Coast Schools project Kingscliff Public School, 12 Orient Street, Kingscliff NSW 2487, dated August 2001 and prepared by Douglas Partners.

### **4.3.3 General Solid Waste (Putrescible)**

These are pre-classified as putrescible e.g. household waste (including general office waste), waste from litter bins collected by or on behalf of Councils and food waste.

The source of general putrescible waste will be from the operation the site compounds, and sections where work d actively being conducted by site staff.

### **4.3.4 Construction and Demolition Waste**

The following construction related waste streams have been identified:

- Demolition wastes from existing structures that require demolition
- Excavation wastes resulting from bulk earthworks.
- Wastes associated with the construction of the new buildings and car park
- Vegetation from removal of shrubs and trees.
- Packaging materials associated with items delivered to site such as pallets, crates, cartons, plastics and wrapping materials.
- Wastes produced from the maintenance of various heavy construction equipment including liquid hazardous wastes from cleaning, repairing and maintenance.

## 5 Waste Management

### 5.1 Waste management hierarchy

Richard Crookes Construction will follow the principles of the waste management hierarchy in accordance with the Waste Avoidance & Resource Recovery Act 2001. The waste hierarchy outlines a process for waste management which aims to implement effective use of resources and minimise waste in accordance with EPA's *NSW Waste Avoidance and Resource Recovery Strategy 2014-21*. The waste management hierarchy is illustrated in Figure 5-1 below.



Figure 5-1: Waste management hierarchy

#### 5.1.1 Reuse and recycling

Waste avoidance will be prioritised during the construction phase of the Project in accordance with the waste management hierarchy.

Wherever possible, waste will be separated and segregated on-site to facilitate reuse and recycling. Waste materials, including excavated soil and construction waste, will be separated onsite into dedicated bins/areas for either reuse onsite or collection by a waste contractor and transport to offsite facilities.

Richard Crookes Constructions will make sure that all necessary planning is undertaken, and site activities coordinated, to avoid spoilage of materials and excessive generation of waste.

#### 5.1.2 Waste handling and storage

Where waste is required to be handled and stored onsite prior to onsite reuse or offsite reuse/recycling/disposal, the following measures apply:

- During demolition, the site would be secured with safety fencing and demolition waste would initially be placed in waste streams in designated skip bins for transport to the resource recovery centre. Skip bins would be provided for:

- Concrete, bricks and tiles
- Co – mingled waste
- General waste
- Any other excavated material (e.g. soil and rock) is to be stored in designated stockpile areas and mitigation measures outlined the Soil and Water Management Sub Plan where:
  - Stockpiles must be located at least 5 m from likely areas of concentrated water flows, and more than 10 m from any waterway;
  - Stockpile heights shall not exceed 4 m, and slopes shall be no steeper than 2:1;
  - Adequate sediment control measures must be installed prior to stockpiling material; and
  - Stockpiles that will be in place for more than 20 days, or which are susceptible to wind or water erosion, shall be covered or otherwise protected from erosion, within 10 days of forming each stockpile.
- Any liquid wastes are to be stored in appropriate containers in bunded areas until transported offsite. Bunded areas will have the capacity to hold 110 per cent of the liquid waste volume for bulk storage or 120 per cent of the volume of the largest container for smaller packaged storage. No liquid waste is expected.
- Waste classified as ‘special waste’ or ‘hazardous waste’ (EPA, 2014) will be carefully segregated (or excavated and placed as separate stockpiles) at demarcated and contained locations. These areas would be appropriately bunded and stockpiles would be covered with anchored geotextile or impermeable plastic sheeting. Where practicable hazardous waste will be stored in an appropriate container (e.g. a waste skip). Should the hazardous waste have the potential to produce contaminated leachate, the material will be stored in an area with an appropriate leachate collection system.
- Any hazardous waste will be managed by appropriately qualified and licensed contractors, in accordance with the requirements of the *Environmentally Hazardous Chemicals Act 1985* and the EPA waste disposal guidelines. No hazardous waste is expected.

All other recyclable or non-recyclable wastes are to be stored in appropriate covered receptacles (e.g. bins or skips) in appropriate locations onsite and contractors commissioned to regularly remove/empty the bins to approved disposal or recycling facilities.

### 5.1.3 Treatment and Disposal

Waste (and sediment) disposal is to be undertaken in accordance with the *Protection of the Environment Operations Act 1997* and the *Waste Avoidance and Resource Recovery Act 2001*. Wastes that are unable to be reused or recycled will be disposed of offsite to an appropriately licenced waste management facility following classification (refer to section 5.2). Details of waste types, volumes and destinations are to be recorded in the Waste Management Register (Appendix A).

If waste material is to be taken off, it must undergo waste classification in accordance with NSW EPA Waste Classification Guidelines Part 1: Classifying waste 2014.

Where waste requires treatment prior to disposal, the waste treatment must be in accordance with the NSW Waste Guidelines Part 2: Immobilisation of waste 2014.

Acid Sulphate Soils (ASS) must be managed in accordance with NSW EPA Waste Classification Guidelines Part 4: Acid Sulfate Soils 2014 and in accordance with the ASSMP.

Wastes that are unable to be reused or recycled may be exported to an EPA licensed waste facility for storage, treatment, processing, reprocessing or disposal. Disposal of waste at these facilities must include tracking of waste vehicles, audits of waste facility receipts and cross verification with the facility. Details of waste types, volumes and destinations are to be recorded in the Waste Management Register (Appendix A).

### 5.1.4 Disposal of Asbestos

All contaminated waste, including used disposable coveralls, respirators, plastic sheeting and items deemed contaminated with asbestos are to be kept damp until double-sealed and in 200 micron thick plastic sheeting, asbestos waste bags or other suitable receptacle. The sealed waste shall be appropriately labelled as containing asbestos and removed from site as soon as practicable. Asbestos waste must be:

- Separated from other material for disposal where that is reasonably practicable;
- Wrapped or contained in a manner that prevents asbestos fibres entering the atmosphere during transportation; and
- Appropriately labelled to warn of the asbestos.

All copies of asbestos waste disposal certificates and receipts must be kept for record.

In the event that off-site disposal of large volumes of asbestos waste is required, transport of all material to and from the site shall only be carried out by an appropriately licensed contractor holding all relevant permits, consents and approvals. The licensed waste disposal contractor is to ensure all vehicles:

- Are securely sealed to prevent any dust or odour emissions during transportation;
- Are decontaminated prior to leaving the site to ensure spoil is not tracked/spilled onto public roads or footpaths;
- Exit the site in a forward direction; and
- Tracking of all asbestos waste is to be in accordance with the NSW EPA asbestos waste monitoring requirements.

All materials removed from site shall be tracked and disposed to a location legally allowed to receive them in accordance with the POEO Act. Documentation is to be obtained and recorded in accordance with regulatory requirements and is to be provided to the receiving site prior to transport or acceptance of the materials.

For asbestos waste or asbestos impacted soil transported in NSW weighing more than 100kg or consisting of more than 10m<sup>2</sup> of asbestos sheeting in one load is required to be recorded utilising the NSW EPA tool, WasteLocate.

## 5.2 Classification of waste streams

Where waste cannot be avoided, reused or recycled it will be classified and appropriately disposed of. The classification of waste will be undertaken in accordance with the EPA (2014) *Waste Classification Guidelines Part 1: Classifying Waste*. This document identifies six classes of waste: Special, Liquid, Hazardous, Restricted Solid, General Solid (putrescible) and General Solid (non-putrescible); and describes a six-step process to classifying waste. That process is described below:

### Step 1: Is it 'special waste'?

Establish if the waste should be classified as special waste. Special wastes are: clinical and related, asbestos, waste tyres. Definitions are provided in the guidelines.

Note: Asbestos and clinical wastes must be managed in accordance with the requirements of Clauses 42 and 43 of the *Protection of the Environment Operations (Waste) Regulation 2005*.

### Step 2: If not special, is it 'liquid waste'?

If it is established that the waste is not special waste it must be decided whether it is 'liquid waste'. Liquid waste means any waste that: has an angle of repose of less than 5° above horizontal becomes free flowing at or below 60° Celsius or when it is transported is generally not capable of being picked up by a spade or shovel.

Liquid wastes are sub-classified into:

- Sewer and stormwater effluent.
- Trackable liquid waste according to *Protection of the Environment Operations (Waste) Regulation 2005* Schedule 1 Waste to which waste tracking requirements apply.
- Non-trackable liquid waste.

**Step 3: If not liquid, has the waste already been pre-classified by the NSW EPA?**

The EPA has pre-classified several commonly generated wastes in the categories of hazardous, general solid waste (putrescibles) and general solid waste (non-putrescibles). If a waste is listed as 'pre-classified', no further assessment is required.

**Step 4: If not pre-classified, is the waste hazardous?**

If the waste is not special waste (other than asbestos waste), liquid waste or pre-classified, establish if it has certain hazardous characteristics and can therefore be classified as hazardous waste.

Hazardous waste includes items such as explosives, flammable solids, substances liable to spontaneous combustion, oxidizing agents, toxic substances and corrosive substances.

**Step 5: If the waste does not have hazardous characteristics, undertake chemical assessment to determine classification.**

If the waste does not possess hazardous characteristics, it needs to be chemically assessed to determine whether it is hazardous, restricted solid or general solid waste (putrescible and non-putrescible). If the waste is not chemically assessed, it must be treated as hazardous.

Waste is assessed by comparing Specific Contaminant Concentrations (SCC) of each chemical contaminant, and where required the leachable concentration using the Toxicity Characteristics Leaching Procedure (TCLP), against Contaminant Thresholds (CT).

**Step 6: Is the general solid waste putrescible or non-putrescible?**

If the waste is chemically assessed as general solid waste, a further assessment is available to determine whether the waste is putrescible or non-putrescible. The assessment determines whether the waste is capable of significant biological transformation. If this assessment is not undertaken, the waste must be managed as general solid waste (putrescible).

## 5.3 Waste exemption

*Clause 51 of the Protection of the Environment Operations (Waste) Regulation 2005* enables the EPA to grant exemptions to the licensing and payment of levies for the land application or use of waste. The EPA has issued general exemptions for a range of commonly recovered, high volume and well characterised waste materials that allow their use as fill or fertiliser at unlicensed, off-site facilities. The general 'Resource Recovery Exemptions' that may be applicable to this Project are identified below. These are general gazette exemptions that do not require approval. A specific exemption may be granted where an application is made to the EPA.

- Excavated Natural Material (ENM order);
- Stormwater;
- Asphalt (Reclaimed Asphalt Order); and
- Recovered aggregate (Recovered Aggregate Order).

Excavated soil will be assessed for compliance with the *Excavated Natural Material Order and Exemption 2014* (the *ENM Order*), and beneficially reused off-site is suitable. Excavated soil will be tested, and laboratory analysed for the chemical and other material requirements outlined in Table 4 of the *ENM Order*. The number of samples for classification and assessment purposes will be collected in accordance with Table 1 of the *ENM Order*. If soil material cannot be validated as ENM

it will be classified in accordance with the EPA (2014) *Waste Classification Guidelines Part 1: Classifying Waste* as outlined in Section 5.2 of this Plan.

## **5.4 Management of waste streams**

The construction activities and types of wastes which may be generated during construction are outlined in Table 5-2, including details of proposed waste management/disposal facility. All waste materials must be placed into clearly labelled skip bins within a designated waste storage area. The applicant must outline the on-site path of travel for waste collection vehicles as specified in the Conditions of Consent. The path of travel must allow for waste collection vehicles up to the maximum size of a medium rigid truck with the capacity to lift and transport an 8m<sup>3</sup> hook lift bin.

## **5.5 Resource management and conservation**

Richard Crookes Construction is dedicated to implementing resource conservation best practice and the reduction of greenhouse gases by adopting energy efficient work practices including:

- Developing and implementing procedures to minimise energy use; and
- Conducting awareness programs for all site personnel regarding energy conservation methods.



Table 5-2: Management of waste streams

Construction Activity	Waste Type	Waste Classification	Proposed reuse/recycling/disposal methods	Waste Quantity	Reuse / Recycle Target	Comments
Demolition/refurbishment of carpark	Asphalt/concrete	Recovered Aggregate & Reclaimed Asphalt assessment required	Re-used off site	120 m <sup>3</sup> 100 m <sup>3</sup>	Resource recovery	Subject to EPA waste exemption results
Demolition of buildings A, C, E and F	Debris	General solid waste (non-putrescible)	Stotts Creek Resource Recovery Centre	1200 m <sup>3</sup> 24 tonnes 400 m <sup>3</sup>	Resource recovery	Asbestos assessment may be necessary
Demolition of ancillary structures	Debris	General solid waste (non-putrescible)	Stotts Creek Resource Recovery Centre	As required	Resource recovery	Asbestos assessment may be necessary
Tree removal and landscaping	Sediment/soil Vegetation	ENM Assessment required Mulch Order Assessment required	Re-used off site	100 m <sup>3</sup> 2 tonnes 70 m <sup>3</sup>	Resource recovery	Subject to EPA waste exemption results
Earthworks / Excavations	Soil	ENM Assessment required	Re-used off site	As required	Resource recovery	Subject to EPA waste exemption results
Construction of new buildings	Timber/concrete	General solid waste (non-putrescible)	Stotts Creek Resource Recovery Centre	Nil advised	Disposal	

Construction Activity	Waste Type	Waste Classification	Proposed reuse/recycling/disposal methods	Waste Quantity	Reuse / Recycle Target	Comments
Demolition/replacement of existing footpaths	Concrete	Recovered Aggregate assessment Required	Re-used off site	Nil advised	Disposal	Subject to EPA waste exemption results

## **6 Environmental mitigation and management measures**

A range of environmental requirements and control measures are identified in the various environmental documents, including the Conditions of Consent, the POEO ACT (1997) and the EIS documents. Specific actions and processes which will be implemented to comply and address the requirements and measures are outlined in Table 6-1.

Table 6-1: Waste, resource, and water management and mitigation measures

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
WE1	Waste management hierarchy to be followed.		Ongoing	Project Manager or their delegate	Best practice,
WE2	Unnecessary resource consumption to be avoided where possible.		Ongoing	All staff	Best practice,
WE3	Where waste generation cannot be avoided, waste shall be reused, recycled or recovered, where possible.		Ongoing	All staff	Best practice,
WE4	Weighbridge receipts must be collected from waste transportation services and records maintained.		Ongoing	Project Manager or their delegate	Best practice,
WE5	Maintain a waste management register.	Waste management register	Ongoing	Project Manager or their delegate	Best practice,
WE6	All waste must be appropriately and securely contained on-site prior to disposal. Labelled, covered waste receptacles should be provided and recycling of general waste undertaken.	Skips, bins, signage etc.	Ongoing	Project Manager or their delegate	Best practice, Conditions of Consent (B25)
WE7	Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.		Ongoing	All staff	Best practice,
WE8	There is to be no disposal or re-use of construction waste on to other land.		Ongoing	Project Manager or their delegate	Best practice, POEO Act
WE9	Waste is not to be burnt on site.		Ongoing	All staff	Best practice,
WE10	Pollution incidents must be reported to each relevant authority in accordance with Section 148 of the Protection of the Environment Operations Act 1997.		Ongoing	Project Manager or their delegate	Best practice, POEO Act

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
WE11	Waste material is not to be left on site once the construction works have been completed.		Post construction	Project Manager or their delegate	Best practice,
WE12	All waste generated during construction must be assessed, classified and managed in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA 2014)	Environmental Consultant	Ongoing	Project Manager or their delegate	Waste Classification Guidelines, Conditions of Consent (C30)
WE13	The Applicant must ensure that concrete waste and rinse water are not disposed of on the site, and are prevented from entering any natural or artificial watercourse		Ongoing	Project Manager or their delegate	Best practice, Conditions of Consent (C31)
WE14	The Applicant must record the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations for the duration of construction.		Ongoing	Project Manager or their delegate	Best practice, Conditions of Consent (C32)
WE15	The Applicant must ensure that the removal of hazardous materials, particularly the method of containment and control of emission of fibres to the air, and disposal at an approved waste disposal facility is in accordance with the requirements of the relevant legislation, codes, standards and guidelines.		Ongoing	Project Manager or their delegate	Best practice, Conditions of Consent (C33)
WE16	The disturbance, movement and disposal of asbestos containing materials will be carried out in accordance with the Work Health and Safety Regulation 2011 and other relevant guidelines. The handling and disposal of asbestos waste will be tracked		Prior and During	Project Manager or their delegate	Condition of Consent (AN11) (C34)
WE17	Asbestos or asbestos contaminated materials that are discovered during demolition and construction activities be strictly managed in accordance with the AMP.		Construction	Site Manager	Best Practice

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
WE18	All asbestos waste over 10m3 or 100kg in one load must be tracked through EPA's WasteLocate services		Construction	Site Manager	Best Practice
WE19	Waste truck loads will be covered prior to trucks leaving the site		Construction	Site Manager	Best Practice
WE20	All waste data will be collated and tracked within the Waste Register		Construction	Site Manager	Best Practice

## **7 Compliance management**

### **7.1 Roles and responsibilities**

The Richard Crookes Construction Project Team's organisational structure and overall roles and responsibilities are outlined in the CEMP.

### **7.2 Procurement of waste contractors**

RCC will engage waste contractors to manage the collection, recycling or disposal of waste that cannot be reused onsite. A number of different waste contractors will be required to appropriately manage the different waste streams generated onsite. To ensure the selection of reliable and experienced contractors, RCC will request the following information that will be included in any contract information:

- Experience
- Any non-conformance notices or environmental offences, penalties or notices
- Copies of licenses and permits for handling, transporting and disposing waste
- Management systems and policies (health and safety, environment and sustainability)
- Proof of compliance with legislation and guidelines
- Cost for collection, processing and recycling/disposal
- Destination of each waste stream
- Processing techniques
- Expected recovery rates of each waste streams.

### **7.3 Training**

All employees, contractors and utility staff working on site will undergo site induction training relating to waste and resource management issues. The induction training will address elements related to waste and resource management including the waste mitigation and management measures outlined in this Plan.

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in waste and resource management.

Further details regarding staff induction and training are outlined in the CEMP.

### **7.4 Site waste control and management**

To ensure adequate site environmental standards are maintained, it is recommended that the following controls be implemented and enforced by the proponent:

1. All waste generated during the project is assessed, classified and managed in accordance with the "Waste Classification Guidelines Part 1: Classifying Waste" (DECCW, December 2009)
2. The body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to prevent any spill or escape of any dust, waste or spoil from the vehicle or trailer
3. Mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorized plant leaving the site, is removed before the vehicle, trailer or motorized plant leaves the premises.

## **7.5 Monitoring and inspection**

Additional requirements and responsibilities in relation to inspections are documented in the CEMP.

## **7.6 Auditing**

Where necessary, audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub plan, EIS and other relevant approvals, licenses and guidelines.

Audit requirements are detailed in the CEMP.

## **7.7 Reporting**

Reporting requirements and responsibilities are documented in the CEMP.

## **7.8 Waste management register**

A waste management register (Appendix A) will be maintained and include the following information:

- Type of waste and its classification (according to the POEO Act and Waste Classification Guidelines).
- Quantities of waste, measured in tonnes.
- How and where the waste was reused, recycled, stockpiled or disposed of.
- Date when the waste was reused, recycled, stockpiled or disposed of; and
- Name and waste transport licence (if applicable) of the transporter used.



## **8 Review and improvement**

### **8.1 Continuous improvement**

Continuous improvement of this Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance;
- Determine the cause or causes of non-conformances and deficiencies;
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies;
- Verify the effectiveness of the corrective and preventative actions;
- Document any changes in procedures resulting from process improvement; and,
- Make comparisons with objectives and targets.

# Appendix A: Waste Management Register



## Appendix B: Training Records



# CERTIFICATE OF COMPLETION

Awarded to

**JULIAN VIAFARA**

For successfully completing KINNECT Training's Silica Awareness

20/06/2023

Issued Date

Never

Expiry Date

A handwritten signature in black ink, appearing to read "Jonathan Wilson".

Jonathan Wilson  
(Director)

Certificate ID: dd06-52f3-175e-1da0